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J. C. DUNCAN, VK3VZ.

TECHNICAL STAFF:
L. B. FISHER, VK3AFF.

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R. W. HIGGINBOTHAM, VK3RN.

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EDITORIAL



THE FEDERAL COUNCILLOR

The dawn of April, 1953, heralds the approach of yet another Federal Convention and brings to the fore questions relative to "the Federal Councillor," his duties and value to the Institute.

Federal Executive, by virtue of regular correspondence, keeps your Federal Councillor fully informed regarding developments in the relationship of the Institute's activities to those of other Societies and Government Departments. The Federal Councillor then assumes the responsibility of keeping the members of his Division abreast of the news by reporting at General Meetings, Council Meetings and Divisional Conventions.

The Federal Councillor is responsible for conveying to Federal Council through Federal Executive the wishes of his Divisional Council and members, in order that a vote of Federal Council may be taken on any matter whatsoever during the course of the year.

The Federal Councillor is the guardian of Federal Policy and as such must be on the alert to see that any action contemplated within his own Division is in accordance with that policy.

Members of the Institute should insist that a full report of Federal activity be given at every General Meeting, and show interest in Federal affairs by the attention given to the Federal Councillor. Furthermore, members should submit to the Federal Councillor matters which, as individuals, they consider warrant Federal action. The conscientious Federal Councillor will submit these matters to his Divisional Council without delay. The Council, in its wisdom, will decide whether the matter is suitable for forwarding to Federal Executive for action; if not, it will convey to the member concerned its decision and give him an acceptable explanation.

Remember! Your Federal Councillor can obtain immediately the vote of Federal Council on any matter throughout the year; therefore only matters of such high policy as to merit personal debate need be placed on an agenda for a Federal Convention.

Get to know your Federal Councillor better—give him work to do—request information at every opportunity—in other words, let him enjoy the status his position merits—let him earn his spurs.

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VK3JWI: Sundays, 1100 hours EST, simultaneously on 3675 and 7145 Kc., \$1.05 and 146.25 Mc. Intrastate working frequency 7135 Kc. Individual frequency checks of Amateur Stations given when VK3JWI is on the air.

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VK3WI: Sundays, 0930 hours WAST, on 7145 Kc. No frequency checks available.

VK3WI: Sundays, at 1000 hours EST, on 7145 Kc. and 146.5 Mc. No frequency checks are available.

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Carrier Control With Self-Biased Clamp Tube Modulator*

One of the current mobile modulation schemes is the circuit shown in Fig. 1. Whatever the original idea behind the use of the selenium rectifier, a check of the system shows that its effect is to provide a means of obtaining a certain amount of carrier control. As pointed out previously,¹ carrier control increases the permissible peak input to the modulated amplifier without exceeding either the capacity of the power supply or the modulated amplifier's rated dissipation, as averaged over a period of voice transmission, by reducing the duty cycle. The rectifier provides the modulator with a d.c. bias that varies with the average of the audio input level. As the audio level increases, the bias on the modulator likewise increases. This reduces the modulator plate current and thus the voltage drop through the modulator plate resistor, R_2 . This allows the average or d.c. voltage of the screen of the r.f. amplifier to rise, and so the carrier level rises.

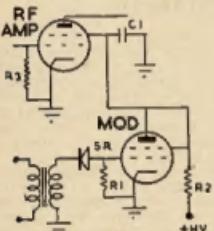


Fig. 1.—Controlled-carrier circuit for clamp tube modulation. A selenium rectifier is used in the grid circuit of the modulator tube. R_1 in this instance is 7 megohms. R_2 is the modulator plate load resistor. C_1 and R_3 are the usual r.f. amplifier screen by-pass and grid leak, respectively.

The circuit of Fig. 1 was set up using a pair of 8AQ5s and a suitable driver for the r.f. amplifier. The r.f. amplifier was adjusted and loaded to show satisfactory linearity by checking the trapezoid pattern on a 'scope. With essentially sine-wave audio input and the level set just below the point where the positive or upward peaks of modulation started to flatten noticeably, the envelope pattern of Fig. 2 was obtained. (Flattening of these peaks occurs in this instance when the negative peaks of the audio signal have sufficient amplitude to cut off modulator plate current.)

Under these conditions, and with a supply voltage of 500, the r.f. amplifier cathode current was about 45 mA. With no modulation, this current dropped to 22 mA. However, no matter what the audio level, the pattern showed the same flattening on the negative or downward modulation peaks. This might be expected, of course. With the selenium rectifier in the circuit, the audio at the grid of the modulator is limited

Various opinions are held by Amateurs on the virtues of Clamp Tube Modulation and, as is usual, some are for and some against.

Those of us who have run into difficulty may have done so due to insufficient knowledge of the factors involved, or due to improper adjustment.

To cover the subject fully we are reprinting an article from "QST" Technical Topics and following with the description of a Mobile Modulator by G. M. Bowen (VK5XU).

essentially to the negative half of the audio cycle, the positive half being virtually eliminated by the rectifier.

At this juncture, it might be well to point out that a great deal of confusion seems to exist in the minds of some in interpreting a 'scope pattern of the type shown in Fig. 2. Such a pattern is described as showing "great peaks of audio rising out of the carrier" which seems to indicate that, in some mysterious way, an unusual amount of sideband power is being generated. Even though all laws of modulation are against it, this idea seems to be confirmed by the way a load lamp (or the antenna current) flashes up when modulation is applied. Perhaps this misconception arises from a hasty comparison with the pattern obtained with a constant-carrier system of the conventional type, such as a properly adjusted clamp tube rig. Such a pattern is shown in Fig. 3. In the latter case, the observer first sees a pattern of the plain carrier before modulation is applied. Therefore, when modulation is applied, it is easy to compare the amplitude of the positive modulation peaks with the carrier level. With controlled carrier, the observer sees a relatively narrow band on the screen before modulation is applied. The mistake no doubt occurs when the same sort of comparison is made between modulated and unmodulated patterns. The fact that the carrier level must increase when modulation is applied in a carrier control system is forgotten or ignored. Just as the carrier is no longer visible in the pattern of Fig. 3, just so the carrier level can no longer be seen in Fig. 2. The part of the pattern labelled A in Fig. 2 corresponds to the similarly labelled part of Fig. 3. The fact that Fig. 2 shows flattening at this point, instead of being nicely rounded in sine-wave fashion, as in Fig. 3, merely in-

Fig. 2—Modulation pattern obtained with the circuit of Fig. 1 with sine-wave audio input. The result of clipping of the positive half of the audio cycle by the selenium rectifier is shown by the flat peaks of modulation in the negative direction.

dicates serious audio distortion. And the fact that A is narrower in Fig. 3 than in Fig. 2 indicates that modulation in the negative direction actually is considerably less in Fig. 2 than in Fig. 3. Without analysing the pattern and determining the true carrier level with modulation, it is impossible to know the percentage of modulation in the positive or upward direction.

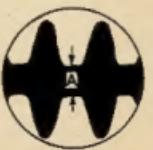


Fig. 3.—Oscilloscope pattern of a properly adjusted clamp tube rig with about 75% modulation. Comparison with Fig. 2 will give an idea of the distortion represented in the latter.

The approximate carrier level can be determined experimentally with the aid of a 'scope and receiver S meter. First, take an S meter reading while the signal is being modulated. Then remove modulation and, without disturbing the coupling to the 'scope, increase the input to the r.f. amplifier until the same S meter reading is obtained. The height of the pattern of this unmodulated carrier will then be the effective height of the carrier level on the original pattern. Input to the amplifier can be raised by increasing the supply voltage, or preferably by inserting a resistor between the modulator cathode and ground and adjusting its value until the desired S meter reading is obtained. In either case, care should be used not to operate the amplifier under this condition longer than is necessary to make the check, since the input will be above normal rating.

Fig. 4 shows the pattern of a conventional constant-carrier system modulated by the same audio signal which modulated the controlled-carrier signal that produced Fig. 2. The dashed line shows the level of the carrier before modulation. It will be seen that the two patterns are identical. With the same input in both cases, the same S meter readings were obtained, showing that both carrier levels were the same. Also, readings of the audio output from the receiver were taken and these two were exactly the same, proving that the sideband powers were equal. An analysis of these two patterns (Figs. 2 and 4) shows upward modulation of about 80 per cent. and downward modulation of only about 55 per cent. Disregarding distortion, it is quite apparent that the circuit as shown in Fig. 1 is not a particularly effective one from the viewpoint of "talk power."

As has been pointed out previously,¹ a high percentage of modulation with screen modulation cannot be expected unless the modulator can swing the screen voltage to zero or beyond into the negative region. This can be done only by the use of a proper transformer.



The carrier level can also be determined graphically by drawing a line through the envelope maximum, parallel to the horizontal axis, and at such a height that the area between the light peaks above the line equals the area in the dark valleys below the line.

¹ Technical Topics, "Clamp Tube Modulation," "QST," March, 1930, p. 46.

* Reprinted from "QST," November, 1932.

¹ Technical Topics, "Screen Modulation with Limited Carrier Control," "QST," April, 1931, p. 64.



Fig. 4. — Scope pattern of a conventional constant carrier system modulated by the same audio signal generated by the circuit of Fig. 1. The dashed line shows the level of the carrier before applying modulation.

between the modulator plate and the r.f. amplifier screen, or by inserting an additional resistor with audio by-pass between the modulator plate and the screen, as shown in Fig. 5. The condenser, C1, tends to hold the d.c. voltage drop across the resistor, R1, constant. Therefore, if the voltage drop across this resistor is made sufficient, the screen voltage may drop to zero or even fall to a potential negative in respect to its cathode when the modulator plate voltage is at its lowest point.

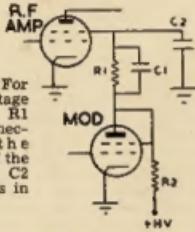


Fig. 5. — For high percentage modulation, R1 and C1 are necessary in the screen lead of the r.f. amplifier. C2 and R2 are as in Fig. 1.

For instance, if the voltage drop across the screen resistor is 100 volts when the modulator plate voltage is 300, then the screen voltage will be $300 - 100 = 200$ volts. Therefore, if the voltage drop across the screen resistor remains the same and the modulator voltage drops to 75 volts, the resulting screen voltage will be $75 - 100 = -25$ volts.

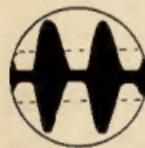


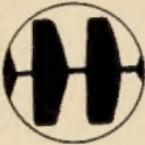
Fig. 6. — Pattern obtained with the circuit of Fig. 1 by adding screen resistor and condenser as shown in Fig. 5. The increase in percentage of downward modulation will be evident by comparing this pattern with the one of Fig. 2.

Fig. 6 shows very clearly the improvement in downward modulation that accompanied this change in circuit. It also serves to make it more obvious that the band at the centre of the pattern cannot be interpreted as representing the carrier under modulation. With 100 per cent downward modulation, this band would be reduced to a line. The dashed line in Fig. 6 again shows the approximate carrier level. Downward modulation has been increased to about 83 per cent—just about the limit for screen modulation with good linearity. However, because of the audio waveform supplied to the modulator grid circuit through the selenium rectifier, this percentage of modulation in the negative direction cannot be reached without producing more than 100 per

cent modulation in the upward direction. Over-modulation in the positive direction can be tolerated so long as the r.f. amplifier operation remains linear. In Fig. 6, upward modulation is about 112 per cent.

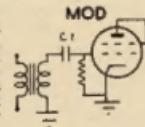
Fig. 7 shows the pattern obtained with an increase in the audio level. The serious flattening on the positive peaks is the result of driving the modulator grid so far negative that the modulator's plate current is cut off so that the r.f. amplifier screen voltage can no longer rise. Incidentally, this is quite apt to be the adjustment that one would reach by adjusting for maximum kick-up of output under modulation. Experience in this series of tests demonstrates once more the virtual impossibility of proper adjustment of a screen-modulated amplifier without the aid of a 'scope.

Fig. 7. — Pattern obtained from the circuit of Fig. 1 with the additions of Fig. 5 and with the audio level increased to where the positive modulation peaks are clipped when the modulator plate current cuts off.



In pursuing the subject further, the question comes up of why the selenium rectifier should be necessary. The modulator tube in this instance is not provided with fixed bias but, with the insertion of a blocking condenser, as shown in Fig. 8, it should operate as a grid-leak-biased amplifier. Operating in this manner the average bias would ride up and down with the audio level, at a rate depending on the time constant of the condenser and grid resistor. Furthermore, the maximum bias developed should approach the peak value of the maximum amplitude of the applied audio signal. Therefore, if the time constant is made long enough, a bias sufficient for essentially Class A operation of the modulator should be held over from one maximum peak to the next.

Fig. 8.—The substitution of a grid blocking condenser, C1, for the selenium rectifier in the circuit of Fig. 1 reduces distortion without impairing carrier control operation.



On the other hand, it is desirable to make the time constant as short as possible while still approaching the Class A condition, because a short time constant reduces the duty cycle and a great peak input can be used, as mentioned previously. The best time constant is one that allows the carrier to vary at approximately a syllabic rate. A time constant of about 0.25 second has been found to be about right. The values used were a 0.25 μ F. condenser and 1 megohm grid resistor.

In practice, the results do not agree completely with the theory. The reason for this is that the theory holds true only if the impedance of the audio source is low so that its output voltage does not vary appreciably with the

varying load of the modulator grid circuit. A microphone transformer is not such a source and the positive peaks in this circuit will be clipped almost as badly as they were by the selenium rectifier. However, even in this case, comparative checks have shown that there is a reduction in distortion compared with that of the circuit with the rectifier.

A Mobile Modulator

BY G. M. BOWEN,† VK5XU

Ever since I acquired a Type 3 unit it has been my ambition to include the modulator within the case. Numerous attempts with a 6J5 as a series screen modulator were moderately successful and all the components "fitted" into the few odd spaces, but the modulation was not as good as it should have been, even for portable operation. Having the cathode 125 volts above earth always made me uneasy, and I could never get 100 per cent modulation with only the mike transformer and tube.

Then recently two events occurred that brightened the horizon. Technical Topics in November, 1952, "QST" gave me a lead on clamp tube controlled carrier using self-bias, and I raised the necessary for an Invalon 6M5 pentode. This tube is the answer to the Ham's prayer. It has such a high slope that it literally runs by itself and the ordinary carbon mike input is sufficient to severely overload it. As a triode it is a first class clamp tube for a 6L6 or any equivalent tube like the 607.

A few hours experimenting with the time constant values of C1 and R1 for the delay time of the carrier and I finished up with C1 0.1 μ F. and R1 1 megohm.

(Continued on Page 4)

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WHY? ... 47?

The Reason for the Oddness of Preferred Values

Reprinted from "Wireless World," Feb., 1952

"Diallist" recently disposed of the impression that when a resistor is marked 47,000 ohms it is necessarily something quite different from a 50,000 ohm resistor. As he pointed out, a usual tolerance is $\pm 10\%$, so the "47,000 ohm" resistor would be within its rights if its actual resistance were anything between 42.3 ohms and 51.7 ohms. For most purposes, then, 47 and 50 are interchangeable.

That being so, why "prefer" 47 to 50? Or 22 to 20, or 68 to 70, or any of the other new-fangled numbers to the easily remembered 10, 25 and 50?

It all arises from the fact that it is impossible to manufacture anything exactly to a given value. There must always be some tolerance, however small. And the cost goes up very steeply as the tolerance is reduced. So it is wasteful to specify a closer tolerance than is really necessary. In ordinary receiver circuits there is rarely anything substantial to be gained by keeping the values of components, except those required for tuning, within closer limits than $\pm 10\%$. In fact, many of them can be allowed a $\pm 20\%$ tolerance,



which means that one marked 50 may be anything from 40 to 60.

In the old days, the main standard values were 10, 25 and 50, with their multiples of ten. Assuming a $\pm 20\%$ tolerance, the allowable spread of each value is shown here in the right-hand column of Table 1.

Nominal Value	Acceptable Values for $\pm 20\%$ Tolerance
10	8-12
25	20-30
50	40-60
100	80-120

TABLE 1.

All is well so far, but what intermediate values would you choose? Even with such a wide tolerance as 20%, there is a large gap between nominal 10 and 25. A likely value would be 15, which would spread from 12 to 18, and so would begin where the nominal 10 left off. But there would still be a gap from 18 to 20. If a standard value of 20 were added, this would spread from 15

to 24, so components that measured between 16 and 18 would be in rather an ambiguous position, since they could be sold as either 15 or 20! Similarly for those between 20 and 24.

So our tidy, sensible round-number scheme is already beginning to look a little less tidy and sensible. It was this that led to the idea of choosing nominal values such that the usual tolerances would include all possible values without any gaps or overlapping. The problem was to divide the whole scale from 10 to 100, so that each division would represent the same tolerance spread from a nominal value. Obviously if this were done from 10 to 100 the same plan would work for 1 to 10 and 100 to 1,000, and so on, covering every possible value.

Musical readers will see that this is the same kind of problem as what they call equal temperament—the dividing up of the octave into a number of equal intervals corresponding as nearly as possible to the existing musical scales. But, as they know, it is impossible to make equal divisions correspond exactly with the simple ratios required for perfect tuning, and the equal temperament whole tone—corresponding to tolerance in our problem—cannot be exactly the 9:8 ratio that makes a true whole tone. Another similar problem, a little nearer our subject, is the dividing up of the 1:10 ratio, or decade, into the ten equal-ratio parts we call octaves.

Starting off with the widest standard tolerance, $\pm 20\%$, we see from the above table that the top-limit value is in every case $\frac{1}{2}$ times the bottom limit. We want to make the first standard value 10, and, as we have seen, the corresponding limit values are 8 and 12. Multiplying 12 by $\frac{1}{2}$ brings us to 18, which is the top limit of 15. The top limit for the next preferred value would be $\frac{1}{2}$ times 18, which is 27, and the number that 27 is 20% more than is 22.5. That is already beginning to look a little odd.

Proceeding in the same way to the next preferred value, we find it to be 33.75, which is worse. But that is not the worst of the matter because it turns out that we do not arrive, as we had wanted, at 100. It falls between two of the preferred values found in this way. After all, it is rather too much to expect that a sequence based on a previously chosen tolerance would end up exactly on 100. One could, of course, abandon the idea of trying to fit the series exactly into a decade scale, but that would sacrifice the immense advantage of having the same numbers repeating as multiples of ten in both directions without limit.

So it is necessary to begin afresh. The kind of scale on which a given ratio is represented everywhere by the same length is the logarithmic scale, with which slide rules are marked. If we try to divide the 1:10 slide-rule scale into equal lengths representing 1:1 $\frac{1}{2}$ we see, as we have already found by calculation, that it does not go exactly. The nearest whole number is six times, and the ratio represented by one-sixth of the whole scale is about 1:1.488, instead of the 1:1.5 we wanted. The corresponding \pm tolerance is just under 19%.

Now, if 47 $\pm 20\%$ is considered rather odd, what would people say about 46.4195 etc. $\pm 18.96\%$ etc., which is



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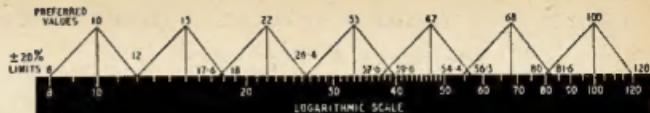
sort of thing a mathematically perfect preferred-value system would give! This was considered rather too much to swallow even in the interests of science, so it was decided to accept slight overlapping of some of the divisions in order to retain the standard tolerance figures and also to allow the "perfect" nominal values to be rounded off to not more than two significant figures. The sequence so obtained is 10, 15, 22, 33, 47, and 68; and it starts all over again with 100, as shown in the diagram.

So we see that if, for example, we had a vast stock of resistors of every possible value between 8 and 80, we could sort them out into six piles labelled 10, 15, 22, 33, 47, and 68, without any of them being more than 20% high or low. And 36 piles would provide for every value between 8 ohms and 8 megohms.

20%	10%	5%
10	10	10
—	—	11
—	12	12
—	—	13
15	15	15
—	—	16
—	18	18
—	—	20
22	22	22
—	—	24
—	27	27
—	—	30
33	33	33
—	—	36
—	39	39
—	—	43
47	47	47
—	—	51
—	56	56
—	—	62
68	68	68
—	—	75
—	82	82
—	—	91

TABLE 2.

Half the tolerance, $\pm 10\%$, or a 9:11 ratio, is represented by half the distance on the logarithmic scale; so twice as many piles are needed, the new ones being centred on the limit values for the 20% classification. There is no difficulty in deciding on 12 as the first of these additional preferred values, because that is exactly $10 + 20\%$ and $15 - 20\%$, but there might be a difference of opinion about some of the others. As a matter of fact, the correct approach is to begin with the smallest standard tolerance, $\pm 5\%$, and divide the decade into 24 sections. The exact tolerance with no overlapping would then be about $\pm 4.8\%$, but this allows no margin for any rounding off of the nominal centre values. When they have been rounded off to the two-figure numbers that give the smoothest sequence, the $\pm 5\%$ values are 11, 12, 13, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 43, 47, 51, 56, 62, 68, 75, 82, and 91. Crossing out every alternate one leaves the $\pm 10\%$ values, 12, 15, 18, 22, 27, 33, 39, 47, 56, 68 and 82; and repeating the process leaves the $\pm 20\%$ values, 15, 22, 33, 47, and 68, as before.



So the whole list of preferred values can be set out as shown in Table 2.

There is no attempt to divide the values any finer for the higher grade components having standard tolerances of $\pm 2\%$ or $\pm 1\%$; so if you wanted, say, 80 ohms $\pm 2\%$, it would either have to be ordered as a non-preferred value, which might not be readily obtainable, or searched for out of an 82 ohm wider tolerance batch.

Incidentally, resistors with silver or gold bands in addition to the usual three-band colour code are not, as might be supposed by the uninitiated, of a particularly select kind; their tolerances are 10% and 5% respectively. The more choice 2% and 1% components are distinguished respectively by an uninteresting red or brown. If there is no tolerance colour at all, $\pm 20\%$ must be assumed.

—“CATHODE RAY.”

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Women and Radio are an Open Book to Me

With Apologies to "Reader's Digest"

The other night my wife brought a couple of her visitors into my shack and after the usual showing off on my part she said, "Pansy is really so clever at radio, it holds no secrets from him." The visitors, looking suitably impressed, were shown out shortly after this.

As I was making my way toward the kitchen, I was stopped short in my tracks by hearing my nine-year-old daughter say, "Mummy, is Daddy really as clever at radio as you say he is all the time?" "Of course he is. He just likes to think that we think that he is."

I was going to speak up then, but my wife went on before I could open my mouth. "It's a kind of game, Audrey. You'll play it yourself when you grow up. All men are the same. You have to fatter them. They like to think that they are big and strong and clever and hardworking, and that we could not get along without them."

Audrey was apparently puzzled by this revelation and finally said, "Don't you love Daddy?" "Of course I love him. That's why I let him break his finger nails on suitcases because it makes him happy to think that he is strong and clever and can open suitcases, while I am too dumb to buy a railway ticket without help, and can't get the top off a tube of toothpaste." After a while she said, with what sounded like a sob in her voice, "Or get up myself on a cold night to get a glass of water."

I silently retired to my shack so that they would not know that I had been eavesdropping on this blood-curdling revelation and also because I wanted to see how long before Audrey would try and put this philosophy into action, and then I would whack it out of her with a hairbrush. My wife was too far gone down the path of deception to be worth the trouble, but Audrey could still be saved.

The try-on by Audrey, when it came, was not what I expected. Later on in the evening she wandered into my shack and stood by my chair while I was tuning up and down the band. I thought, here it comes, first the build-up, then the request for the increased allowance, finally the hairbrush.

She said, "Daddy, you know what?" "No what?" "Mummy thinks you are a dillpot." "What makes you say that?" "She said so. She said you aren't as smart as you think you are." "That wasn't what she said—I mean, when was all this?" "Today. She said that all men are dumb, and if you tell them right you can make them do practically anything for you."

"Well what do you think?" I said. Her essential honesty was clearly coming to the fore. I didn't have to worry about her. Not Audrey. I felt a great surge of affection for my daughter.

She said, "I don't think you are a dillpot. You wouldn't fall for that kind of business. Maybe other men would, but not my Daddy. No sir, I'll bet." She slid her arm around my neck. "Nobody is as clever as you are. Nobody can make kites as good as you can." She climbed into my lap. "Or tell such good stories." She put her head under my chin. "Or work the DX stations like you do." She put both arms around my neck and squeezed tight. "I like you. I'll bet you're the smartest man in the whole world. I don't care what anybody says."

I wanted that 607 rather badly, but two and six a week is hardly a decent allowance for a nine-year-old girl, after all. So right there and then I raised her allowance to five bob!—5PS.

KEY PLUG FOR TYPE A MK. III.

Recently found myself in need of a plug to connect the key to the Type A Mark III.

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DX NOTES BY VK7RK*

The month of February, as is usual, gives the first indication of the change to come at the end of our "DX Season" and a gradual re-arrangement of operating times to suit winter conditions. This is borne out mainly by the falling off of night time long skip operation, such as Europe short route, around 1400z on 14 Mc., with the consequent improvement in long path working, fewer openings on 21 Mc., and slightly better conditions on 7 Mc. So far there doesn't seem to be any change in 3.5, but as the next few months advance and QRM eases, these latter two bands should be really worth watching. It will be interesting to note how these bands behave this winter as we approach what seems to be recognised as an all time low in sun spot activity.

3.5 Mc. finds me indebted to 4XJ for the only piece of info and that is that there are two W stations, calls uncertain at the moment, both awaiting receipt of QSL to determine the first applicant for DX C.C. on this band. Anyone who has battled QRM on 3.5 will agree that this is some achievement.

7 Mc.: A source of interest here has of course been the W phone debut and quite a lot of the gang can be heard having excellent QSOs along these lines. Quite a long hop from the pre-war days when the agreement seemed almost universal to keep 7 Mc. for c.w. only at night. Time marches, but whether for better or for worse is left to individual opinion.

Eric BERS195 plans for 1953 to confine his listening solely to this band and, judging by results already achieved in a short space of time, will finish the year with a fine total. 50 countries in 24 zones have already been logged, some of the prefixes being CT, CT3, C9N, DL, EA, GI, I, HB, IS, KE6, KC6, KJ6, KP4, KV4, LZ, OE, OD, OK, OZ, PA, SM, TA, UA, UB, UI, UL, VQ4, VU, YI, YO, YU, ZS, ZS7, ZS9, 4X4, 5A. Who was it said 7 Mc. was no good for DX?

2AMB still likes this band also and worked PA0UL, SMOAFN, LA3C, PYIAHL, and SP3PL. VK3 S.W.L. Don Grantley, comes up with a nice list of calls heard including EA5CS, UB5KBB, HB9MK, KL7AV, KB8AF, CO7HS, UA6KFA, UA5KQB, YU1BEF, E18C, CT1DQ, FA9IO, SUIRS, MB9CA, MP4CC, KV4AA and many others. The times given by Don for the European stations, all between 2000z and 2200z, bear out the opinion of the gradual change in conditions and from now on we can expect 7 Mc. to improve for this continent in the early mornings.

Among those who enjoyed the W phone QSOs were Hans 3AHH and 3ATW who worked over 40 of them the first week-end. A further note from BERS195 gives the dope that GC3HFE of Guernsey, Channel 3, uses only 8 watts on c.w. but has been heard with a very good signal.

14 Mc. has to be followed with a little more care now, but nevertheless still provides the bulk of the reports. 3AWW maintains his flow of good ones, working FM7WD, CR9AF, CE4HX, ZS3U, ZS6AAF, ZC4WP, ZB1BU, TA3AA, GC2CNC, 4X4FW, SP6XA,

SP2KGA, DULCV, EI4X, HS1VR, and G15UR. Bill is a little doubtful of the LB5Q he chased, but I would say it was OK and give it to Norway. 2AMB QSOed LU2GB, OH3RA, GI4RY, OA4ED and YU3RB.

4XJ worked OA4ED, CSBF (Formosa), MB4BBE and 4X4FW. 3AHH finds that February's 28 days not long enough but nevertheless reports OA4ED* (this bloke seems to get around), VQ3KIP, LU3EEB, MI3AB, OD5AD, TF5SV and PJ2CA. Zone 40 is not very common and for those interested, the TF was heard at 1140z.

My own activity has been extremely limited during the month, but some of the calls that managed to filter through the cob-webs were VU2JK, GW3FYR, EA3GF, 8S4BS, SU1SS, KV4AA, OH4NT, FN8BAD (still nothing definite on this one), OZ5LR, 5ASTY, YU3BC, TA3AA, XX2OM, OD5LC, MP4BBD.

Am fortunate in now having two ex-DL correspondents, both named Hans, to complete the coincidence. The newest is 2AOU, ex-DL1EZ, who briefly gives the dope on VK signs as heard in DL land. Hans was a s.w.l. from 1930 to 1949 after which he obtained his DL call for 18 months before coming to Australia. During that time he worked 110 countries in 33 zones. QSLs were eight short of DX C.C. but is still on the job chasing the slower ones. Hans mentions that it was not usual to hear different States on any one week-end, VK2 one week-end, VK3 or possibly VK4 the next. Short route signals (afternoon in DL) were generally stronger, but much harder to work owing to terrific QRM, but long route (afternoon in VK3) although signals were weaker, much easier to copy.

Since October, 2AOU has worked 27 countries in 13 zones. The latest listings are worked: DULTP, VK9SF, ZK2AA, VR4AE, VK1RG, KJ8AW, SM7QK, CE6AO, ZM6AA, PJ1J, GM3CDL, SP2KAC, OD5BH; heard: MF2AA, PY2CK, KX6AR, ZC4CP, CN8FV, VR4RV, K7IWX, VR3C, GDFRVR, V8SAW, ZS1H, KV4BB, VR3PF, HZ1SD, ZM6AC, MI3US, and MP4MBK. He doesn't mention which are phone or c.w., but some of the above are obviously phone and others appear to be c.w., so I take it the list combines both.

Specifically on phone, from 3AWW who QSOed 5A3TL, ZS6QG, OD5BH, 3V8BB, OD5A, VK1HM, YV5AB, ZS5MP, VQ4LRF, ULBFAO, and missed out on ZP5CF and EA9AR. 3AHH sends in R4CAC*, HC1CFG, VP6SD, HZ1TA. From 4XJ: KB6AY*; and from 4CW: HK5ER*.

21 Mc. is heading for the short skip season. The only DX I worked all month was F3TP. 2AOU heard CT1IP. Most of the other mentions of the band are of Interstate working.

28 Mc.: 4XJ's list grows a little smaller but is still the only report I get for the band. Less managed KH6UL*, KH6AGY* and KATAK.

QSLs received by lots, but not me. 3AWW had FQ8AP, VP6SD, KJ6AW, 3V8BB, KC6QL, VQ3BM, 3AHH: ZM6AA, GI4RY. BERS195: CR5UP,

FR7ZA, FF8AN, FQ8AC, GC3HFE, KA9AA, HH2FL, KM6AH/KB6, FK58BC, PK4VD, TA3AA, VE7AIH (21 Mc.), 4X4BT.

Some QTHs of note are: ZP5CF, Box 512, Asuncion, Paraguay; EA9AR, Manuel Melba, Box 2060, Casablanca, or via CN8MFM; HH2FL, Franck Lanoix, Box 153, Port au Prince, Haiti.

A few jottings of general interest include a note on FQ8AP who is in the French Aeronautical Service, running 15 watts at Fort Archambault. He will be there for another year and is looking for VK contacts at suitable times.

VQ3BD is in D.C.A. at Aeradio Station, Mbeya, Tanganyika, and remotely controls his rig over one mile of line. He leaves in August, but until then anticipates being on 14058 Kc. 0400z to 0630z and 21084 Kc. 1030z to 1530z. He has a stack of cards for VQ3D1 who appears to be unknown there.

VK1HM says that Dave Carpenter will be or is operating as ZC2AC at Cable and Wireless Station, Direction Is., Keeling and Cocos Is. Group. Another, Arthur Wellard, may operate from same place, call as yet unknown.

DX C.C. LISTING

PHONE

Call	No. Ctr.	Call	No. Ctr.
VK4HR	13	VK4RT	22
VK4HZE	3	VK4T	17
VK4HJH	10	VK4W	20
VK4KRU	2	VK4TP	8
VK4AJD	1	VK4DO	20
VK4KS	9	VK4MS	94
VK4KWW	1	VK4DT	10
VK4LRA	11	VK4SA	1
VK4PJ	21	VK4SH	25
VK3AWW	16	VK4P	19
VK3L	7	VK4H	8
VK3WFT	18	VK4G	18
VK3DD	19	VK4BG	10

C.W.

Call	No. Ctr.	Call	No. Ctr.
VK3B	5	VK4MF	11
VK3H	6	VK4YD	87
VK3HJH	11	VK4Y	3
VK4EJ	9	VK4S	1
VK4FJ	8	VK4SII	1
VK4JBO	20	VK4PL	38
VK4JBO	2	VK4HT	27
VK4JW	15	VK4V	12
VK3XW	15	VK4T	20
VK3XZ	23	VK4TL	94
VK3CX	26	VK4DA	7
VK3SA	28	VK4TLZ	17
VK3UO	1	VK4D	12
VK4QL	16	VK4SW	40
VK3BQ	23	VK4YC	36
VK3JW	6	VK4JAPA	16
VK3QJL	9	VK4P	19
VK3PS	2	VK4DIA	25
VK3PH	21	VK4R	25
VK4AD	20	VK4AEZ	35
VK4JSE	21	VK4CK	100
VK3JXK	20	VK4CKX	33

OPEN

Call	No. Ctr.	Call	No. Ctr.
VK3BZ	4	VK7LZ	27
VK4HR	7	VK7VQ	48
VK3NS	18	VK7JW	83
VK3U	19	VK7V	10
VK3JHE	13	VK7ADY	24
VK4FJ	23	VK7PG	47
VK3HKG	3	VK7K	49
VK3KSW	13	VK7HC	31
VK3KJ	17	VK7KZ	24
VK3KX	1	VK7H	38
VK4EL	10	VK7ZC	25
VK4KRS	24	VK7YL	11
VK4D	15	VK7PWN	2
VK3AWW	45	VK7VN	18
VK3LN	28	VK7U	27
VK3JFL	26	VK7VU	44
VK3HJC	8	VK7P	50
VK3P	10	VK7T	17
VK4WF	40	VK7TKL	30
VK4AD	22	VK7ET	27
VK3HJH	41	VK7DX	43
VK3KJ	23	VK7KZ	31
VK3GK	48	VK7V	55
VK3JAH	9	VK7VXK	54
VK3JAHM	30	VK7SH	81
VK3KRW	23	VK7ACK	8
VK3JLJ	33	VK7CTG	39

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150 pF. per Section, Dual Junior, 23/10/-	
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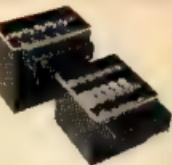
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Compiled by J. K. RIDGWAY, VK3CR.

2 MX OPENS FOR VK3-VK7

The night of the 24th February made up for all the time and work put into the 2 mx skeds by the Launceston gang. At 1920, 7PF heard 3ABA's automatic m.c.w. very weakly. The signal built up to a maximum at 2040 and was out at 2050. As many calls had been given with no QSO, 3ABA was raised by landline by 7PF at 2105.

Jim swung his beam again and commenced working 7BQ at 2115, but QSB put the signals in the noise before a QSO could be made. 3CP also heard 7LZ's c.w. at this time. 3RK was then followed by 7PF at 2132 with signals both RST 578. This was followed by QSO with 3RK by 7LZ and 7BQ. 7LZ at 2206 worked 3ABA, followed by 7PF and 7BQ. 7GM came on to work 3RK for his first VK3 QSO. He was followed by 3YS who also worked all VK7's. The VK3's could still be heard at 0055 on the 25th when they QRT. More than one QSO took place between some stations as conditions were good enough for a long rag-chew.

Skeds were arranged for 0645 on the next day. 3ABA and 3RK were heard on c.w. at RST 548, but no QSO resulted.

These good conditions were obtained on the trailing edge of a slow moving high pressure. Radio-sonde readings taken at Launceston at 1400 hours show no temperature inversion, but a layer of dry air between 1,500 and 10,000 ft with layers of moist air above and below. This could point to a possible duct having been present.

An interesting point noticed was the QSB. When 3ABA's signal went up in strength, 3RK's signal went down. This was also found by the VK3's with the VK7 signals.

We hope that this opening will encourage more VK3 stations to keep the skeds and also to call, leave their carriers on, do anything but only put a signal on the band when conditions look right. As the best time of the year is to come, we can only hope for many more interesting contacts.—7PF.

N.S.W. V.H.F. GROUP

On 14th February some of the V.H.F. Group, N.S.W. Division, took a trip to Newcastle to attend a meeting of the Hunter Branch of the W.I.A. They took with them lecturers and approximately 20 units of v.h.f. gear, from pip squeak to 100 watt tx's, rx's, converters, g.d.o.'s, super regen's, etc. The chief lecturer was 2AB, Berry Beresford, supported by 2ANF, John Miller, and 2AJX Harry Solomons. We were very grateful to see such a good roll up of Hunter Branch members, 76 in all. Lionel Swain, Chairman and President of the Hunter Branch, turned the meeting over to John Miller, President of the N.S.W. V.H.F. Group, who introduced the lecturers. After the lecture, a vote of thanks was given by John Clarke to N.S.W. Div., supported by 2AGY. We take this opportunity of thanking the Newcastle boys for their conviviality and interest. We also wish to congratulate their President, Mr. Lionel Swain,

on having been awarded the honour of life membership of the N.S.W. Division.

50 Mc. News.—This band has been reasonably active this month, 2JX having contacted 2WH with good signals both ways. 2AH and 2JU have both been heard working with 2GU Canberra with very good signals both ways. 2ANF had QSO cross band 2 and 6 mx with 2GU. The band custodian, 2RU, has been heard frequently in contact with 2ADT and 2AGY. 2VW, 2II, 2AJR, 2AKK, 2ABC, 2WJ have been on fairly regularly. Once this month ZLs have broken through, but all around, conditions have been bad in N.S.W.

144 Mc. News.—As usual this band has been active, with many of the distant country stations coming in with good strength. Canberra stations 2GU and 2PM have been R7 in Sydney. 2WH at Forbes is perhaps the most consistent 2ADT, 2AGY, 2ADS, 2BZ, all of Newcastle area, have been worked at good strength. 2OT has been heard in Sydney S4. We have not heard 2XY for some time. 2ANU, Muswellbrook, has not been heard in Sydney this month. 2AGY says that he is interested in hearing 2GU and 2PM; Fred's frequency is 144.004 Mc., he uses c.w. and phone, and has a really good signal in Sydney. The mobile boys have been out this month, and caused quite a lot of interest. 2ANF/M, the Gladyside Radio Club 2ADY, 2ABO, and 2ATO/M Walkabout!

On Wednesday 18th, 2ANF/M went out to French's Forest, the Sydney boys had to plot his QTH. A lot of fun was had by all, and some rather funny bearings were given. Stations that participated were 2LZ, 2HO, 2WJ, 2QW, 2HL, 2ABZ, 2AJZ, 2LG and 2AQB.

On Sunday 21st Gladyside Radio Club held a field day of mobile stations who all went to secret locations. The home stations were all invited to join in and plot the whereabouts of each mobile unit. Although the weather was not all to be expected, a very good and interesting day was had by all. Some stations were mobile all the way there and home. Mobile stations participating were 2AOY, 2ABO, 2YE, 2ATO, 2AOA, and 2HL. That night their whereabouts were divulged. Some very accurate bearings were recorded, and by the same token some very funny bearings were also given. Thanks a lot to the organisers, it was a good effort.

A few of the DX frequencies may be handy. 2GU's frequency is 144 Mc. and 2PM 144.15 Mc., both of Canberra. 2ANU Muswellbrook 144.6 Mc., 2VU Singleton 144.15 Mc., 2TA Young 144.74 Mc., 2AMV Forbes 144.07 Mc., 2NS Bathurst 144.04 Mc. Newcastle boys: 2ADS 144.14, 2BZ 144.126, 2AGY 144.004. A new station on 144 on c.c. is 2ARM, welcome to the band OM.

576 Mc. News.—Now that the DX is out, interest will be turned to the 576 Mc. band. The Newcastle boys have shown interest this month and 2BZ has acquired some gear for this band; this means that other Newcastle boys will become interested. In Sydney, stations equipped for 576 Mc. are 2WJ, 2AJZ, 2HL, 2VL, 2HO, 2JX, 2ABZ, 2AWZ, 2ANF, 2YR, 2XX, 2PU, 2XG and 2VW.

Now how about getting on all of you. I have even heard that 2RU is keen. Cess Croan has to be thanked for the good "urging" he has put into this 576 Mc. work.—2HO.

VICTORIAN DIV. V.H.F. GROUP

Apparently Amateur Radio teletype is gaining in popularity in U.S.A. Many v.h.f. Amateurs there are making contact by this method of transmission, employing audio frequency shift keying. This must be quite an interesting phase of radio work from both the technical and operational points of view.

The next V.h.f. Group meeting is on the 15th April at 8 p.m. in the Institute's Rooms. If you work on 50 Mc. or above come along and meet your fellow occupants of these bands. Visitors are also welcome.

The February meeting was preceded by a visit to the f.m. station at Jolimont. 18 were present for the inspection. A feature of the station noticeable from over a large area of the city is the mast and aerial. The mast itself is 200 feet high, and on top of this is a 30 ft. four bay turnstile antenna consisting of crossed folded dipoles. At the present time the station functions by relaying ABC programmes, so that none of the ancillary equipment and studios peculiar to the A and B class stations on the medium frequencies exists at the moment. The gear is therefore confined to that necessary to produce the required r.f. power together with the means to provide frequency modulation of the carrier. The input to the final amplifier (a pair of 2278 beam tetrodes) is approximately 2 kw. These are preceded by a line-up of frequency multipliers and amplifiers with normal circuitry to the final frequency of 91.1 Mc. The set-up is reactance tube modulated and incorporates frequency stabilisation.

Some 6 mx Interstate openings during the latter part of February have been reported. After returning from overseas, 3NW has recently appeared on 6 mx. We welcome Ken back on the v.h.f. bands.

Once again 2 mx signals have spanned Bass Strait. On the evening of 24th February contacts were made between Launceston and stations in the metropolitan area. Transmitter powers ranged from 30 to 80 watts input to the final. The antenna consisted of the following types: Dipole, Lenf, 12 and 16 element arrays, 5 over 5. Regarding locations, stations contacted are not much above sea level, while Launceston stations are situated in the Tamar Valley. The distance involved is roughly 270 miles.

It is of interest to note that a continuous test transmission is being maintained by the P.M.G.'s. Research Section on a frequency of 160 Mc., the location of the tx being about half way up Mt. Arthur, near Launceston. Signal strength recording apparatus is located at Sandringham, Victoria. Recordable signals have been received on a number of occasions, and unusually high signal peaks were consistently recorded during the period 20th to 24th February. The tx output power is 16 watts and a five element beam is employed at each end. For those interested in comparing the meteorological conditions with the above v.h.f. results, the general nature of the atmosphere at the time (as confirmed by the Weather Bureau), was

characterised by abnormal temperature and humidity gradients caused by the drift of warm dry air over Bass Strait from the mainland, giving rise to super-refraction of the radio waves concerned.

As may be recalled, the first VK3-VK7 QSO on 2 mx was made in March, 1950, by 3AKE, of Geelong, and 7PF. Stations coming on later from Burnie provided further contacts with VK3. However, those on the 24th were the first made between Launceston and the Melbourne area. On the same evening, the two active Ballarat v.h.f. Amateurs 3ZL and 3GM were received in Melbourne well above normal sig strengths. These stations reported reception of carriers on the VK7 frequencies.

Look for VK7 2 mx signals at 8.45 a.m. and after 8 p.m. The daily sked with VK2 is at 8.30 p.m. They transmit the first five minutes.

3APF, of Shepparton, is now putting a stronger signal into the Melbourne area since increasing power with an 829B as the 2 mx final.

288 Mc. fans will be interested to know that Don 3PO, of Ballarat, calls Melbourne every evening at 2000 hours for five minutes, then listens for five minutes through till 2030 hours. 3AAF and 3AFJ also looking for signs of activity on this band. 3AFJ looks for signals from Geelong at 2030 hours till 2045 hours. SWL Gerry Lane at Tunstall has heard 3AFJ at 58 over a distance of six miles.

Members may obtain from the Secretary, contest log sheets which can be adapted for use in the v.h.f. field day contest. Next and final field day is on 26th April.—3ABA.

SOUTH AUSTRALIA

Clem 5GL reports that the various bands have nothing on the wide open spaces of Central Australia. Much trepidation in the land of Colonel Light Gardens as Bill Lloyd is completing a 50 ft. steel tower and an 829 final with 100w. slung in for good measurement on 144 Mc. Bill 5HD of course is famous as the relative of Hughie who has done so much to put VK5 onto the Ross Hull Trophy list.

Mac 5ME probably has the same feelings as myself when he opens his "QST" and sees there the R.C.A. ad. for the 6146 and in another spot "50 Mc. and Over" and I quote: "The new 6A4 tube is a triode specially designed for fellows who are looking for ways to improve their rx performance . . . grounded grid r.f. service at 420 Mc." and again, "A companion tube for u.h.f. t.v. mixer use is the 6AM4 . . . the noise figure of xtal converter was improved by 8 db by the addition of the 5842 amplifier, another high-gm triode." Never mind, Mac, we'll try tripling again!

The fish can't be biting too well at Lincoln because there is news that terrific activity on 6 and 2 mx has appeared in the shack of 5VJ and maybe that hop across the Peninsula will soon be made. Wally 5DF is also reported to be delving into the mysteries of the v.h.f. having put 50 c/s. just where they ought to be. 5VJ using a converted AR301.

Jack 5LR has found that 6 and 2 mx beams stay up easier than 10 or 20 mx ones, and has made a come back with crystal controlled tx and rx's. Back in

the post-war era we of the stay-at-home fauna found it convenient to listen and call on the v.h.f. bands between 1939 and 2000 hours each night. It was amazing who popped up wasn't it Max? What about it chaps? Joe 5JO is still listening. Maybe you'd better give a call next time Joe.

Les 5AX still working the city regularly, but Lance, at Clare, probably too busy putting out fires to use the power on 50 Mc. Saw a well known Mt. Gambierite recently heading away from the local "disposals hand-out centre"—I quote that famous saying! Doc 5MD, by the way, uses a ground plane fed with co-ax with an 815 in the final and for reception swears by a 10 ft. piece of Nylex inside the shack and attached to the R.A.A.F. converter.

My one-lunger has not rushed for months, but there are a fair crop of garden rakes around my suburb and on 288 we have Howard 5XA working Rex 5KY over the back fence. Keep it up boys, you'll be down my way soon.

Lorrie 5XN has 5MC's tower and is busy erecting it along with 20 mx under—under I said—a 288 array. And before I leave you, my fellow strugglers, did you know that 5NL has broken in on 50 Mc. Good going Ron. You know of course that reliable communication can be made regularly over distances of 1,000 miles on 50 Mc. Yes, Sir, the Americans have done it on 49.6 Mc. and using 100 kilowatts. So brethren, jack up that old transformer and ring up the water supply for a 12 inch main. As for me, give me the transistor—it only needs a 1½ volt torch cell for crystal control on 144 Mc.—5XU.

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1952 VK-ZL DX Contest Results

With DX conditions in the doldrums, the small number of logs received was to be expected although many VK and ZL stations who participated failed to return logs and the same can be said of many Oceania stations, particularly in regards to the phone division. Much credit is due to those who unselfishly forwarded logs even though their scores were well below that necessary for the award of certificates.

It was decided after the 1951 Test that all competitors should operate for the same 24 hours, with no choice of hours. This feature caused hardship to at least one ZL who lost several "choice" hours when his AC power was cut in his district to conserve power. Electricity is still in short supply in ZL although the position will be OK in 1953.

The top c.w. scores were returned by VK2DG (top VK for the third year running) and by ZL2FA who needs little introduction into DX circles; while the phone winners were VK3LN and ZL2GX. A point of interest is the very small difference between the top VK and ZL scores in each division. Top overseas score for c.w. came from W7PGX who used four bands, while overseas phone honours go to VS1EG who used one band. It should be noted that overseas stations used the "country multiplier" method of scoring while VK-ZL stations used the B.E.R.U. system.

Awards. Certificates were posted to all winners during the first week in February. VK special awards will be announced by W.L.A. Silver mounted plaques for the top ZL scorers go to ZL2FA and ZL2GX.

The 1952 Test was organised by the N.Z.A.R.T. The 1953 Test will be organised by the W.L.A.

C.W. SECTION

Australia									
Call	80	40	20	15	10	Total			
VK2DG	—	1095	1274	118	—	2488			
VK2GW	45	767	889	173	—	1874			
VK2ANN	—	568	1169	45	—	1782			
VK5FH	—	737	932	45	—	1714			
VK2AWU	45	284	857	366	—	1332			
VK6RU	—	502	573	—	—	1075			
VK3HT	—	605	239	117	—	961			
VK5KU	—	450	226	—	—	676			
VK2AHA	—	401	232	—	—	633			
VK3PL	—	398	222	—	—	620			
VK3XB	—	385	189	—	—	574			
VK3AAH	—	160	350	—	—	510			
VK3CX	—	—	440	—	—	440			
VK2RA	89	145	58	118	—	410			
VK3ANJ	—	160	234	—	—	394			
VK5XK	—	74	304	—	—	378			
VK3HL	—	—	367	—	—	367			
VK5WO	—	—	84	—	—	84			
VK2JZ	—	—	—	—	Check				

New Zealand

Call	80	40	20	15	11/10	Total			
ZL2FA	—	1117	1405	—	—	2522			
ZL1AH	—	843	604	490	30	1967			
ZL1MQ	74	444	681	158	20/73	1459			
ZL4JA	—	808	569	—	—	1377			
ZL2GS	—	529	249	—	—	778			
ZL2BJ	—	739	—	—	—	739			
ZL3LL	—	557	—	—	—	557			
ZL3IA	—	—	388	—	—	388			
ZL2MM	—	368	—	—	—	368			
ZL3JT	300	—	—	—	—	300			
ZL1QW	—	—	202	—	—	202			
ZL2IQ	—	185	—	—	—	185			
ZL2GX	—	—	158	—	—	158			
ZL1HY	—	—	—	Check	Check				
ZL3CP	—	—	—	Check	Check				

PHONE SECTION

Australia

Call	20	15	10	Total					
VK3LN	1203	—	—	1203					
VK4KS	723	—	—	219	942				
VK2DG	839	30	—	—	869				
VK6RU	699	—	—	—	699				
VK9DB	516	—	—	44	550				
VK3AUP	503	—	—	—	503				
VK2ATN	402	—	—	—	402				
VK5LC	343	—	—	—	342				
VK6DX	247	—	—	—	247				
VK5CE	183	—	—	—	182				
VK2AHA	102	—	—	—	102				
New Zealand									
Call	20	15	10	Total					
ZL2GX	1186	—	—	1186					
ZL1MQ	363	15	15	382					
ZL4JA	109	—	—	109					
ZL1HY	—	—	—	Check	Check				

LISTENERS' SECTION

Australia

E. Trebilcock, BERS195	1815								
E. Giddings	1204								
New Zealand									
L. D. Jones	—	—	—	638					
R. W. Gray	—	—	—	591					
J. B. Holder	—	—	—	295					

OVERSEAS RESULTS

C.W. SECTION

North America	FWDW	18							
W2WZ	288	OH2MC	28						
W2EQS	30	OH1PW	27						
W3LXE	264	OH3OX	24						
W3QOR	12	OH1OW	21						
W4HQN	504	OH2KK	9						
W4KS	12	OH2VZ	1						
W5ADZ	2175	HB9CZ	73						
W5LFH	784	PA0VB	108						
W5UKL	752	954AX	28						
W5OLG	187	DL1FF	1000						
W6IBD	1880	DL1XF	284						
W6ATO	1394	DL3BK	234						
W6AM	530	DL7MF	144						
W6WOO	154	DL1YA	4						
W7PGX	4384	OZ7PH	161						
W7DL	2134	OZ5LN	32						
W7HAD	1000	G4CP	481						
W7PQE	546	G6BS	390						
W8NWX	1775	G6XN	140						
W7EAIH	175	GW5SL	100						
ON4PA	35	SM7QY	264						
F8RM	77	SM5CO	180						

SM5LL	145	Oceania	1909
SM5AQV	75	KH6ARA	1604
SM7AVA	52	KH6AHD	986
SM3AKM	48	YJ1AB	98
SM5WJ	35		
SM7YO	35		
SM5ANY	32	VS6CG	1547
VS55AE	32	VS1EV	333
VS56AE	32	KA2KW	192
VS55AE	28	JA1AF	126
ZS1H	28	JASAB	18
Asia			
W2WZ	3	SM7YO	2
W3LXE	4	OK1MB	230
W6DI	369	F8FT	35
W6IBD	198	G6KN	3
VE7AIH	95		

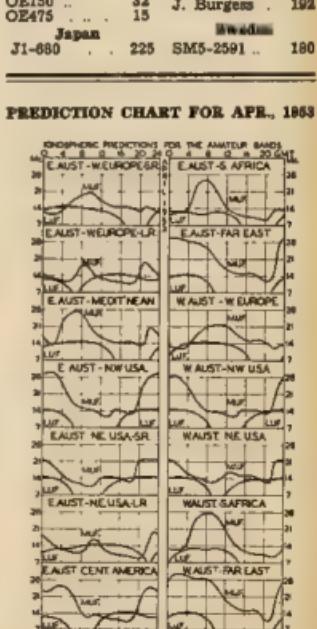
PHONE SECTION

North America	SMTYO	2	Asia	2
PA0NU	112	VS1EG	466	
PA0BRG	66	VS1EV	264	
OZ7SM	40	KR6CA	95	
SMSACC	304	KA7SL	184	

LISTENERS' SECTION

Austria	Czechoslovakia	2	
OE4603	576	OEK-10603	53
OE196	330	OEK-6515	5
OE491	144	OK-4921	8
OE499	126		
OE325	105		
OE181	50	BRS15822	408
OE150	32	J. Burgess	192
OE475	15		

PREDICTION CHART FOR APR. 1963



FEDERAL, QSL, and



DIVISIONAL NOTES

FEDERAL

E.S.G.B. CORONATION RELAY

During the years 1930 to 1931 an important feature of the Federal Radio Relays was the British Empire's Annual Loyal Relay. Over this period His Royal Highness, the Prince of Wales, K.G., (now H.R.H. the Duke of Windsor, K.G.), was Patron of the Radio Society of Great Britain, which annually in June each year, organized special relays throughout the Empire originated messages conveying Loyal birthday greetings to the then Royal Patron of the Society. The messages were relayed to R.S.G.B. Headquarters via Amateur Radio stations which were collocated with the stations to York House, London, on the morning of His Royal Highness' birthday.

This year, 1952, the Council of the R.S.G.B. has notified all Empire Societies that it has decided to organize a Coronation Relay, the first of its kind ever undertaken during which National and local societies throughout the British Commonwealth are invited to send messages of loyal congratulations to Her Majesty Queen Elizabeth so that they reach R.S.G.B. Headquarters a few days before her Coronation on June 2nd.

It is requested that messages should originate from the President or Chairman of the appropriate Society and should include the name of the organization and the call signs of all the stations having the message.

Mr. H. A. Bartlett, G8QA, Council Member and Coronation Relay Organiser, has requested the support of all Empire Amateur Societies to give this the success it deserves. Mr. Bartlett, in his letter to W.I.A., has pointed out that the R.S.G.B. has appointed him to organize the first Loyal Relay in June, 1952, and that the six United Kingdom Amateurs appointed to organize the first Loyal Relay in June, 1952, are still alive. They are Mr. Fred W. Miles, G8ML, and Mr. L. Howard Thomas, G6QKA.

BEWARE OF BERYLLIUM POISONING!

A timely warning to Amateurs appears in "Radio 25", official organ of the South African Radio League, January, 1952, edition. It concerns a harmful poisoning of human tissues that can be brought about by an amateur scratcher's contact with the compound containing beryllium used to coat the inside surface of the ordinary fluorescent lighting tubes.

Many Amateurs use these tubes as r.f. indicators—although their useful life on 360 volts a.c. has ceased with great success while many have probably that they can't get a r.f. meter to show a reading. Should the tube become broken and the surface of the skin cut or scratched by a piece of the broken glass, beryllium powder can find its way into the tissues giving rise to a condition in which apparently all attempts to effect a cure—cases have been known where the only successful treatment has necessitated wide surgical excision.

Take heed lest an accident occur with dire consequences to you or yours! Should a tube become broken accidentally, do not handle the fragments, but with rubber or leather gloves remove the pieces and bury them deep enough in the ground to avoid them ever being dug up again. When broken, are sharp beryllium shards still should be exercised. The safest way would be not to have any of them on your premises unless actually safely installed as a fighting fixture!

ANNUAL FEDERAL DINNER

The Annual Federal Dinner of the Wireless Institute of Australia will take place at the Federal Hotel, Collins Street, Melbourne, on Easter Saturday night, 4th April, commencing at 8 p.m. Guests will be the Delegates from the VK Division, representatives of the Postmaster-General's Department and the Australian Broadcasting Control Board, Institute Officers and representatives of the three Services will be in attendance.

FEDERAL QSL BUREAU

RAY JONES, VK8HJ, MANAGER

Latest advices indicate that Felix Franchette, F9QG, ex-FK9AC, who has been on extended furlough in his homeland, will leave for a further term of service in New Caledonia on 28th April.

A very pretty card especially designed and signed for the 1952 VK-2L DX Contest is that from W8ADZ. The cards are striking, attractive, and well executed in coloured, frosted paints.

More hitherto unpublished QTHs by courtesy of Treb., BERS106: KM6AH/K6B is now K8RAY. Fred Carpenter, ex-C4A, Canton Island, V3TD, has just returned from operating a G3CZC populating issue of own call G3CZC. Also back in G after sojourns with R.A.F. at Salala, Oman, Will soon be heard under G3CZK. ZCSVS now gives QTH as Box 128 Sandakan, Br. Nth. Borneo. FIEA, ex-FM7, Paul Fletcher, BESL, Selangor, E. India, China, reported to be returning to France shortly.

Regret notes short this month as writer has been on holidays and now cleaning up the mail accumulated. During the time of his absence he remained reaquainted with Doug 3PH, Bill 2JE, and the squire of Parkdale, who has risen up the social scale by adding philately to his other hobbies. Helps him to while away the time while stealthily listening for the rare ones.

Will be back in G in time for the tour to Sydney, but due to a pulled monkey muscle in calf and an abscess on the lower jaw (mascotte of foot and mouth disease) and a last minute alteration to my itinerary, plan to make a several Sydney visits. Will try to return went astray. Will all concerned accept regrets and apologies. However, did meet old friend, evergreen Jim Corbin, 2TC, the ubiquitous VK1G. Manager who never looked better or in better spirits. I trust that he will once again be a power in the land with his unbounded energy and enthusiasm for the Ham game.

NEW SOUTH WALES

The February meeting of the N.S.W. Division was held at Science House on the 27th with the President, John Moyle, at the helm. An attendance of about 100 members passed quickly through the various sections, the principal item of interest which was a lecture on the Design of Receiving Valves by Messrs. Ron Tremlett, Kevin M. Johnson, and J. H. Bourne, F. Philips.

The lecture was originally delivered at the I.R.E. Convention held in Sydney last year and was in the form of a tape recording which was reproduced at excellent quality on the President's reproduction unit. The recording was made by the President and the manufacturer of receiving valves taken at Philips' works. At the conclusion of the film at 9 p.m., Mr. Tremlett answered questions on the film for some 35 minutes and then the tape was passed on to the lecturer who then gave a series of slides which were skillfully handled by our Treasurer, Sam Owen, and lasted 10' about 10 p.m. Mr. Tremlett and Mr. Johnson then answered a battery of questions in a manner so interesting that I am sure that it would have been there past midnight had not a possible half been taken. The lecturers were enthusiastically applauded for a very fine effort.

Nominations were then called for the position of Federal Conductor for the next year and the position was taken by John Moyle (2AU) and Jim Corbin (F1YC). Vaughan Wilson (2WV) having declined nomination. Jim won the vote on a show of hands and congratulations are extended to him. Vaughan Wilson was nominated to accept nomination as observer at the coming Federal Convention and was elected unopposed.

COALFIELDS AND LAKES ZONE

2ANU has departed for a rest by the sea, complete with portable gear for 40 and 80. 2VU has just returned from a similar expedition and now has a large programme of modifications mapped out. 2YL is again active and is picking up some 20' on 20. 2ADT is still searching for the ideal rx. band by testing the bands and variable speeders. 2ADT hooked up some gear on 570 Mc. but has no results to report so far. 2RU very busy with house renovations which have curtailed

ACCURATE FREQUENCY TRANSMISSION RESULTS

Thursday, 26th February, 1952

7000 Kc.	— 12 cycles low
7020 Kc.	— 80 " low
7040 Kc.	— 18 " high
7060 Kc.	— 50 " high
7080 Kc.	— 456 " low
7100 Kc.	— 20 " high
7120 Kc.	— 5 " high
7140 Kc.	— No Check
7150 Kc.	— No Check

Ham activity 2ER appeared on 40 after a long absence. 2AEZ now in a new location in Gosford but not heard to date. Nothing has been heard of 2GA or 2EE, but 2AR will still keep active on 40.

NORTH COAST AND TABLELANDS

The next big event on the North Coast is the Urunga Convention. No doubt you've all heard news from Urunga. It is the grand time to be had at the gathering and if there are any who just can't make up their minds as to come or not, then consider your arm at the table and the pressure of good times and fellowship. And I'm sure you who have no doubt as to what you should do.

A welcome goes out to Abe 2TG who is now stationed at Bellinger and hasn't lost any time getting on 40 and 30. Good signals have been heard from 2UC, 2GL, 2JC and 2KO on 40 mcs. while 2AU, 2WV and 2VU are on the same band. Crief 2XK had a pleasant trip to Sydney and returned with a new utility ready for his long service leave, while Peter 2PA intends to spend some time in Wollongong. 2VU is also on the air. Tom 2LR, of Kyogle, will soon have an 813 running red hot, so all reports will be welcomed by him. John 2AMW has been biding his time at Scott's Head once again and puts out a nice signal with the portable.

Frogs again visited the North Coast and quite a few North Coast boys were on their toes to see that they needed help. Although Kempsey only had three feet of water in the low part of the town, quite a few hard lines went out of order—a condition which could prove disastrous in the future. It is hoped in the near future that the P.M.G. Department will sanction periodic testing with the Police Department, because it is almost too late to test when the flood has gone its damage, so an early announcement of the intention will be welcomed by all here on the North Coast.

To finish on a more joyful note, tune up that portable gear and join us at our Easter Convention at Urunga.

HUNTER BRANCH

As already reported in the "Bulletin", the February meeting, at which a lecture demonstration was given by the V.h.f. Group from Sydney, was attended by approximately 70 members and visitors. Two new members joined in both the v.h.f. boys who brought their gear all the way from the "Big Smoke" and to our Secretary who made the arrangements for this grand night. We were pleased to see the return of our old timers, Peter 2PA from Wymond and our keen v.h.f. man from Upper Hunter, Geoff 2VU, who represented the boys in that area. Divisional Council honoured us by the presence of Secretary Dens 2EO and Committee.

The Hunter boys are preparing for annual pilgrimage to the North Coast Convention at Urunga, and hope to bring back many prizes. The gang will be led by 2AHA and Harold has purchased a special designed gear of 1930 vintage, ideal for portable contests and finds hidden tx's by instinct! Secretary 2EY is also taking the family and Varley will likewise continue with annual holidays after Convention, combining fishing and portable operations. 2ADT, 2T and 2X also on annual leave will be 2XK and no doubt Shorty will take fellow worker 2UY as far as Urunga! 2XK is going again. Ken 2WV is also taking his "box" by way of 2DX on 40 and 30, taking his "box" for 144 too. Hoping to retain Fishing Trophy for the Hunter Branch is Associate, Sd. Daniels, who will log-keep for 2AHA in contests. Les Sparke and 2YL will be the vice-comptete with 2ADT and 2T. Originator of Urunga, Dens 2EO, Crief 2XK and 2VU, passed through Newcastle recently and they are looking forward to seeing the Hunter gang at Easter.

April 1st from playing with the great variety of the five radio clubs. President 2CB's main activity has been gardening. Although QRL selling the amber liquid, Treasurer 2XT has given much thought to plans to help country members on W.I.A. Bill's interest in Institute affairs is also a notable one. Vice-President 2XZ was kept busy with his firm's radio exhibit at Newcastle Show. Reason for 2LY's absence on air was disclosed when Harold's photo appeared in local newspaper as a "big hit" at the radio and television section of the Show! Les 2WU got along to last meeting, do it more often OM. Although Norm 2AA doesn't get on much, the old fox listens a lot! 2AXM still meddling with converters. Joe 2ANL worried by the confined space at his "Hut" QTH.

From Maitland we hear that the "80 MX Gentleman," John 2XQ, is thinking of shifting QTH to "Cecil City." 2XQ has not completed re-orientation of antenna pole to suit his shortwave set a stock when 2ANQ cuts sig on air again! Among the first to QSO Ws when they came on 40 mx phone was Jim 2ZC. Friend 2WP got in early for the T.V.L. Booklet and enthusiasm was high. 2ANQ has some fears. Harry 2AUX will lose his independence later this year! 2WP taking things easy on the re-build. 2ANG gone back into his shell. Please to report New SOS hopes to be active again next year. 2ANQ better rely on 40 m supplies following via shipments. Doug himself made v.h.f. history in Newcastle when he QSO'd 2BZ on 578 Mc with gear. Cee Cronin brought up for the V.H.F. Group demonstration. Fred 2AGV has started with wire antenna. 2ANQ puts out copper piggy sig from the 2 element beam on 8 mx. Max 3OT working cross-band # and 2 mms and doing some local mobile on 46. 2ANQ news: when the great parliament Day is holidays at 8000 ft. Doug uses 2AUX transceiver. 2XCY working a little DX on 40 and 20 mx c.w. 2WP also chases DX and making changes in TA12C tank circuit. 2CN been heard on 1000 Mc. 2ANQ says: 2ANQ must be having some trouble with his 2000 Mc. trouble with the Phillips No 4 rx. At Stockton, 2PJ busy boat building, but has an occasional QSO on 86. 2AMMC's XYL been ill; hope Betty OK now. 2ANQ's son, Alan, has just now acquired land near 2AAI for possible to the poor Ron! Lakesiders 2KQ and 2AFA quiet lately. As this will be my swan song, I'd like to express my gratitude to those who have assisted me in my work. I would like to appeal to you chaps to let the Zone Officer know what's doing so he won't have to be a super Sherlock Holmes and Hunt Anderson! 73 from 2ASJ.

Notice of Meeting.—A special lecture is being arranged for the April meeting which will be arranged for the 10th inst. at the Auditorium on Friday 18th. Cars will leave usual Newcastle meeting place, Hunter Street West, at 7.15 p.m.

VICTORIA

The March meeting of the Division was held on 4/5/53 when approximately 120 members assembled to partake in a tender night. General business was quickly dealt with, leaving most of the evening available for tendering.

Gear available ranged from jars of odd screws to tx's and rx's.

SJN, O.C. Tenders, kept things moving along at a merry pace, but still managed to raise plenty of laughs. Unfortunately the evening was not long enough to dispose of all the gear offering, and private sales were arranged after lock-up time.

2ANQ has taken a taxi home, as he acquired enough bits and pieces for a major re-build. Another successful tenderer was 300's junior op. Just as well Eric brought the station waggong along.

2ANQ, SJD, was asked about the tender night held in S.A. He explained that they took part of the proceeds for their funds and it appears possible that similar steps will be taken here in future. I would like to see such proceeds allocated for the building fund, which has just been established.

The building fund has got away to a good start, but will have to be greatly increased before positive action can be taken to acquire our own premises.

It was announced at this meeting that arrangements have now been made to resume slow Morse transmissions every Sunday evening. The time slot being that service will appear on reports on the transmissions. If you cannot contact them direct, reports may be sent to the room in Queen Street. Please pass this information along to your a.w.f. friends.

2ANQ's 144 Mc. transmitters for the Sunday morning broadcasts are now transmitted simultaneously with the 7 and 15 Mc. transmitters. Reports should be sent direct to 3WL. Don't know where everybody went during the long weekend, but heard very few signals on the air. 2ANQ has a portable gear ready for Easter holidays. 2AAB playing with an inverted V, but have had no report about it yet. 3BII talking of putting a signal on 288. 3ATR trying 160 Mc. modulation. 2ANQ doesn't seem to be using 2AII. 2ANQ's photo to Moonbeam Saw JAPD's photo in evening paper recently. Filled out with new uniform ready to take his place in the Coronation Contingent. If he was any taller I'd need guy wires. If I go on any further I'll have to send the editor parcels of butter, eggs, etc. (and potatoes—Ed.), so till next month, cheers chaps.

NORTH EASTERN ZONE CONVENTION

Yer men, by kind favour of the editor we have the brief off on the Annual Convention

of the North Eastern Zone, held in the Avenir Public Hall (1876) on 5th March when Jack 2PP was elected President for the year, Rev. RUDY VON PFEIFFER and Hugh 3AEC Vice-Pres. The Zone Correspondent was left to Andy 3ND, while the Communications was handed again to the capable operators, Col 2SWA and Ken 3KK. The Zone Emergency Co-ordinator is HENRY 3EP.

We will not deal with the individuals this time, but we would have liked to have seen, for example, John JACK, Howard 3VV, Alex 3AT, Tom JTS, Les 3AIE, Chas 3ACW and Associate Jim Harrington. The trip around the Division was a most interesting one and most interesting going over the omni-directional v.h.f. range, the 75 Mc. marker on the Lorenz range, the D.M.E. equipment and the communications installation. All wound up with an excellent quiz in the evening, the answers by Mr. D. R. Twigg, and her friend Congrats in closing to Alan 3SQ, Doug 3LI, and Chas 3ACW on an extra good show.

CENTRAL WESTERN ZONE

In the absence of Trev 3ATR, now holidaying in VK4, lucky blighter, your worthy scribes for this month are the Lubbeck lads—3JB and 3AKC. Once again activity in this zone has been rather quiet, with most of the boys just getting on their holidays.

3JB designed a super-duper combination 3 and 6 mcs tx with v.f.o. and all, but ran out of the necessary spoolondicks on his holidays: looks like back to the old mod. osc. and super blower 3AEC running around with a sparkling new one. What do you do it BIL? Come and touch you for a loan and get that new tx finished yet!

Mer 3ATC seems to be about the only progressive member of the zone, having all his 1 mcs gear in operation but nobody to talk him. 3JB has been moving his gear range in the old ladder and is shortly sitting for his first class ticket, good luck to you anyway fellas. Jim 3DP playing around with a 3 mc converter, so keep your ears open. May, and 3AKC get coming out of Hotham yet. 3JB and 3AKC are awaiting the arrival of his alter ego, look out for the kilowatts when he gets it operating fellows.

Visitors to the "best broadcasting station . . . with apologies to a certain VK4" recently were 3AKB and 3GQ. Had to lock and chain the

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DXes for the occasion. DX conditions seem to have deteriorated during the last month and the local DX bounds, WER and Harold 3AJX, have been finding things pretty lean, have been drowning our sorrows in the local hostelry!

In conclusion, we extend a hearty invitation to all zone members to be present on our Wednesday night meetings at 8pm, p.m. and assist the regulars. Not everyone that means you! Don't look at me like that Bill! Seriously fellows, a low powered 50 mW rig is not hard to construct and we do like to keep in touch with you all. You'll be there? F.b. them, be seeing you.

FAR NORTH WESTERN ZONE

After many attempts to get some notes in on time, I have at last managed to get around to providing the "Far North" boys there are in time for inclusion in the April issue. The main items of interest here at the moment is the 2 mW activity by Chas JTL. Called on CQ a few weeks ago and was surprised on the air linked with self excited oscillators and super regen rx, to say nothing about the antenna systems. He has really been stuck in it and now has graduated to a 10 mW on top of what he has been put up by anyone, but has hopes of working Ian at the Mildura drome in the very near future. 3GZ has made a 4 element beam for two, and has the SCA 1000 ix section on the radio, power supply and oscillator section which someone has been tampering with. He would be grateful if anyone would supply him with the values of cathode coil and condenser, in fact the slope on the grid condenser part of the circ.

Last month we made a visit to Noel 3AUG at Merbein. By we, I mean JTL, 3BN, 3AHP and 3GZ. Noel demonstrated his beam and managed to work a couple of DX stations just to prove that it worked. The other thing he commented about was the lack of ash trays in Noel's shack. Really Noel, the door is far too open and span to accommodate the ash and butts. Chas, Max and Jim were depositing their next visit, will bring a supply of ash trays.

The Sunday afternoon hook-up works occasionally, but conditions or bowls make us miss out on Frank 3FC in Guyra. Bill 3AJU also seems to be in the skip mode. Since he is now seen to be in the mining and prospecting operations now and hasn't a great deal of time for Ham Radio. Harry 3MF tells me that he is

looking his gear over and has hopes of doing something in the near future. I gather the Junior op. keeps Harry busy these days. I hope that by the time next month comes around we will have some news of contacts on 1 mW.

MOORABBIN & DIS. AMATEUR RADIO CLUB

At the meeting held at the Moorabbin Town Hall Annex on Friday evening, 20th February, movies of the annual club picnic and various hidden tx hunts, including the tx hunt at Balwyn, were shown by the Hill Film Productions. It was decided to inaugurate classes for members desirous study for the Amateur Operators Proficiency Certificate.

Honorary Member Certificates are still available to amateur Amateurs who contact members of the Moorabbin Radio Club "over the air" and who also QSO the club station, VK3AFC. The club station is in operation on the first and third Friday of each month.

GERLONG AMATEUR RADIO CLUB

Another novel tx hunt took place during February. Altogether four hunts took place at that meeting, each lasting 20 minutes. The tx to the hunt was on for five minutes to permit the hunters to return to the club to start again. A point system was used which resulted in a win for Max Stock and party, while Robert and company and J. Beckingham tied for second place.

The second meeting of the month was a visit to the shack of Bob 3IC who had his gear arranged very neatly; it consisted of an FPC 1000 ix section, 10 mW and a 4 element beam. During the evening Bob had a contact with Peter 3AJP. While this was going on, the boys were enjoying a buffet supper which was appreciated by the members.

QUEENSLAND

The February general meeting was very poorly attended mainly due to the rain, there being full members and local residents present. Being forced into this, a vote was taken whether or not to call a meeting and it was decided to carry on. It was revealed that our meeting place (R.L.E. Rooms) is no longer available and that the next meeting will be held in the Royal Geographical Rooms in Ann Street, opposite the Canberra, and this general meeting will be on the first Friday of the month.

The Annual General Meeting is scheduled for 8th April and the Annual Dinner on 10th April, tickets 12/6 each. It is regretted that our Class Manager, Mr Tom Athey, is no longer able to carry on. He has done a splendid job for the club, however, and it is hoped that by the end of the session when endeavours will be made to obtain a permanent instructor.

It was suggested by 4CC that permission be sought to allow QSOs in other languages than at present, English. 4AO voiced disapproval of portion of the motion. Divisional activity is a recent issue. 4VJ suggested a field day be held to revive interest in Divisional activities. That about sums up the February meeting.

Construction generally have been extremely good at this QSL. Last entry in my log was 4th January. Apart from a local or two and the story of the divine antenna, the panoramic view and the vertical, none of the locals seem ready to be copied. It has been suggested to frequent possess black out labels and this may have a disquieting effect. We must expect poor conditions this year, being right down in the trough of the eleven-year cycle.

The March general meeting was held on Friday 8th. Last entry in my log was 4th January. Apart from the same rooms previously mentioned, there being 20 members present. An official invitation has been received for VK4 Hume to attend the Urunga Convention 4th to 6th April, 1954—where all are invited to an exhibition.

4VJ, as Federal representative, outlined with the aid of maps the latest approved plan for the Emergency Net which has been gone into very thoroughly. It is a plan to use the radio as a mighty weapon of assistance in an emergency. Those with equipment are requested to get together and standardise as much as possible. The Central Committee advised that the annual VK4 Hume Convention will take place from 1st to 30th April. One rule altered from last year is that consecutive QSOs between two stations on various bands will no longer be permissible. Five (5) QSOs with other stations must be made in between.

At the suggestion of one of the Downs members, some trial broadcasts of the weekly Sunday 4W1 session will be in full swing by the time this is in print, on 3.8 MC band. At the 7th, 14th and 21st March, 4W1 will broadcast in certain areas due to the existing poor conditions, so 4W1 will radiate simultaneously on 3.8, 7 and 14 MC. bands. It is hoped this will improve service to country members.

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Here is a resume of 4DQ's portable operation from Green Mountain, National Park. Conditions and location were excellent. VK5 3, 4, 5, 6 and 7 were worked between 2000 and 0600 New York. 20 stations could not be heard or worked owing to Mt. Benthongabel, which is 4,000 ft above sea level, being between the operating point and ZL1; the portable location was 3,000 ft above sea level. The very interesting low power tests were carried out with 4BT. Radios, using power as low as 1/4 watt with signs 7 to 8 in strength; the distance being 56 miles. Other stations worked consistently were 10G, 4PZ, Toowoomina, 4KXK Millmerrin, 4GQ Yarram and 4KXN. The distance to the far distance to 4KXN being 138 miles. The antenna used a 4 element wide spaced beam 12 ft high. This job has been used for five years and is estimated to weight 10 lbs. Power was obtained from petrol driven 3000 watt alternator and it is hoped to operate again from the same location next Xmas on 144 Mc.

The following is a news letter from 4RW at Townsville. Since writing the last notes, things have been very quiet on the band, as is now the case on most of the other log books. With very little on the bands, no even a dropping can take place with the result that news at present is very scarce. Recently a surprise visit was made to Ted AMH at the fair circuit. Ted was working 144 Mc. and was looking for a shady spot till the sun set each day. Ted as usual wanted to show me off to the boys down at the capital city of Queensland, but as usual the 144 Mc. band would not come good. Only a wretched few are there calling them from the 4W1 hook-up; the noise level was terrific. Many electrical gadgets mar a good QSO on the Ham bands; no wonder poor old Ted takes up the hobby of fishing to quieten his nerves.

Once again it was unable to purloin any gear. The only items on his hobby traps to keep straying hands still, believe it or not, is a fishing line fastened with all kinds of hooks, swivels and fishing lures, even uses a plastic prawn to fool the fishies on Ted, he uses them for bait.

Congratulations to Wally 4WY on new harmonic, very good Ted, and Harry 4HV, and congratulations 4OF on the other circuit. W.W. is passing across town because no DX. Ted tightens up that bug it gets away from you at times.

Quite a number of Amateurs live in this area but their call signs are never heard. How about it chaps, the wet season has almost ended with rain coming on the air some time and chew the rats etc. but no DX made me not appreciate your appearance. It may get back some interest in the local radio club. Those old socials can be put on once again.

SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division was held as usual in the club rooms and took the form of a "buy-and-sell" evening. This form of meeting night is held about three times a year and appears to be the favourite evening of all the members. Now 3LW and 3LW-BW were the two auctioneers and as usual kept the audience in high spirits by their pertinent and to the point remarks directed at the would-be buyers. When these nights were first held, quite a number of members decided to make it their hobby and the mere making of a bid usually brought down on their head a few helpful suggestions from the auctioneers as to how they could improve their art or as to how they could clean up their phone etc. accompanying the bid. The bidding was however, with reckless abandon and takes all that is coming to them without turning a hair, which in all, is what makes the night the success that they have become. Unfortunately for me and fortunately for the old Editor, there is very little that I can write about these nights that I have not told you before, and therefore I must close the description of the monthly general meeting with saying that a few days later, the members of the VK5 Division, a thanks of members must go to the energetic Dave SDDH, Hal SAW, Jim SFO and Reg SRR who sat at the main table and handled all the clerical details. Doc SMD and John SKU were the more or less silent auctioneers. The proceedings ended in the back room and the President SPP stepped down from the chair and made himself a nuisance when necessary, being eventually auctioned for ninepence with the result that he was not re-elected. I was disappointed, I thought I would have brought at least a shilling, even if only for boiling down.

Jack 20Y paid a visit to the City of Churches (VK3) where please note and naturally came up to see the "best broadcasting" and "technical" "radio engineer" employed by the excellent "Telecom". Jack was very pleased to meet him and also his XYL, and we all got together on his last day

in VK5 and swapped tales of radio, and radio, and radio. I formed the impression that Jack came into the control room of the "BBSB" with some precipitation, apparently he was not too sure if he was working on "P" or was accidental or not. I wish I had been a wake-up voice would have risen an octave or so, and I feel certain that Jack and his XYL would have been speeded on into the lift at top speed. Such is radio, they even believe that "P" fits me like a glove. Oh dear, oh dear, I am put out!!!

There is no rest for a scribbler to this magazine. I have engaged in battle with several of the other scribblers from other States at various times, and now to add to my woes, I am coming to my debit, and just when I had considered that I had dealt the final blow to the "copy boy" from the State that is on my western area (judging by his continued silence), up bob a new adversary from the State that is on my eastern area. "City of Pubs" indeed, in a few seconds will give you the pleasure of calling on you at their earliest convenience, and the choice of weapons are, Don't forget, S.M. and S.M. of "City of Pubs", do not worry our discribers, and it's i-j-u-j as w-w-w-well that w-w-w are s-s-separated by all t-t-those m-m-mials!!

It is with regret that I write of the death of Laurie Phyllis (ex-SLP). Although he was not active at the time of his passing, he was present when we were all on the air. He had for many years confined to his bed with what was supposed to be an incurable complaint and the local boys installed a station at his bedside from which he operated at all times of the day and night and to whom he described his almost miraculous recovery. Employed as a well known radio and electrical firm at the time of his death, Laurie was at all times a booster for Amateur Radio and was always ready to pass on to the boys any information that he gained during his long association with the trade. We all extend to his wife and family our sincere sympathy in their sad loss.

WEST COAST AREAS

SDV, who has been reduced to low power, I write, due to the sudden demise of his tranny, has now decided to go QRT and rebuild a new rig from the ground up to the sky. Wally is also going to the mainland for a fortnight's holiday and the locals expect a few more calls from the power station during his absence.

SLT has also lost a ht. tranny, and as his beam is still lying on the ground exactly as it fell, minus the telephone wires I hope, Pat has also decided to take advantage of the half in progress to rebuild the rig. It is not compact, but efficient. I had the pleasure of meeting your son-in-law, Pat, I tried to pump him for some scandal for this column, but he was too shrewd for me.

SJV is very keen to contact Adelaide on 2 mx and I am sure Wally has been trying hard to get them but have decided to go on a rig to run 100 watts, xtal controlled, using an SSB, if they can find one. Jack says that they expect to be ready in a couple of months. Thanks for the notes, Jack and also for addressing them to me. I am sure that the notes are good and crude and coarse were their replies. I also appreciated the address, c/o, T.B.B.S.L.T.S. Adelaide. Get it you guys.

Visitors to Port Lincoln have included Lionel SOG and Laurie SKN. Unfortunately nobody could locate any DX to offer these city dwellers but wait till next time!

SOUTH EAST AREAS

SKH has finished painting his poles at last and that means that it won't be long now before Claude starts making a hole in forty again. If you are there, you will be in for a treat on 3 mx. STW has been making serials for 3LW and has now two in operation, one on the tx and one on the rx; ever get them mixed up. Tom? SFD almost fell out of his chair when a W6 came back to his CQ on forty on phone. Just as he was about to say "what's up" who will come back. SKU is busy building up his countries on e.w. using 20 mx. What has happened to the gliding erg? Don't tell me that you have given it away.

SMS, again, the reason being that the steel tower arrived and the 60 ft. tower is under construction. Stuart has been heard on 40 mx quite often and occasionally on 2 mx. SJA still continues to be the silent worker of the South East, but the boys have not quite given up hope that he will bring in signals from time to time with the Emergency Fire Service Communications Unit, but aside for a few sheets on 40 and 2 mx, Col has little to report. I am told that he has at last convinced the boys that the new beam really does work. Thanks again for the notes, Col, and regards to the family.

UPPER MURRAY AREAS

SKW is at the moment of writing on his annual holidays and was a very welcome visitor at the general meeting. Didn't see you buy anything, Hairy, but I hope you will be sold on something. RCF is still here from the recent visit of the stork and is definitely QRT. I told you Murray that there was nothing to worry about, the doctor has never lost a father yet! EXO is either AWL or QRT, nobody seems to be aware what has happened to Mr. Kelly, Sir, that you are not still mounted on your dugout. Sir I was only joking Sir.

SBC has been very busy with the teen weeny BC station that keeps a fatherly eye on and therefore has been almost QRT. Having trouble with the transistors Hughes UMA has been a great help for me, but I must give you quite a shock that month's notes were in my hands a full fortnight ahead. He can't keep it up, he can't keep it up. Many thanks Fred, I can't tell you how welcome they are.

STL has his new serial, half wave on 30 mx, functioning according to Hoyle, and is going on holidays soon to Adelaide, his son is being married and then he is off to Whyalla. My mother does not like driving when Tom is travelling on "rattling rattles" or by train, I pity Whyalla if it is on "R.S." SKH manages to fit from one activity to another with the agility of a w, well what you thought I was going to say, and what we tape recording, gliding, amateur radio, Hobart, Tasmania, is probably older than twenty-one. Wolfgang Wutke will probably be a married man by the time these notes are being read and we all extend to him and his XYL to be our best wishes. Once again I must give my usual "advise" to newly married, DX before Dishes. Ron Kemp is at the moment on holidays in Adelaide and will probably be an associate member before long. Welcome OM, you couldn't do a better job.

The Upper Murray meeting of the local boys for February was held at the QTH of Tom STL and although it was only a small attendance, due to several reasons, it was nevertheless an enjoyable evening, interesting meeting. Tom demonstrated his bits and pieces including his RA10FA rx, which proved very sensitive, so much so, that it would pick up the mice squeaking and the pots and pans rattling in the kitchen. Many thanks were given for the evening went to Mrs. Tom who put on the item of the night, to wit, a tasty and appetising supper to which the boys did more than justice. The next meeting, which would have been held at Whyalla, has been postponed indefinitely due to local reasons, fruit harvesting and holidays, but it is expected that will be held at the QTH of Fred SMA.

Uncle XRAY (SUX) dropped the Secretary a line from Cook where he is apparently settling in. He has quite a lot of time on his hands but has decided to go on a rig to run 100 watts, xtal controlled, using an SSB, if they can find one. Jack says that they expect to be ready in a couple of months. Thanks for the notes, Jack and also for addressing them to me. I am sure that the notes are good and crude and coarse were their replies. I also appreciated the address, c/o, T.B.B.S.L.T.S. Adelaide. Get it you guys.

In the lives of most reporters there comes once in their life what is known as "The Scop." To me that moment has arrived. Melbourne is to have a visit from a notable VK5 citizen, and so far nobody knows who it is, only me. Unfortunately I was not allowed to know his name as he is travelling incognitum—well anyway he is travelling in secret. However, if you should be at the Spencer Street siding on the morning of the 2nd of April, and can sight your way through the massed ranks of members of the "Feral" crew armed with tommy guns, the Magazine Committee armed to the teeth with hand grenades, and the dear Editor with an outside in red pencil and a larger than usual wastepaper basket, then you will be in for a treat under the second class carriages, a debonair, handsome, and athletic citizen from the City of Churches (VK3) please note, I regret that I am not allowed to reveal his name, but he has agreed to allow me to make a special scoop for me, the only scribbler to release the news. I told you I was good. "First with the news Parsons" they call me.

Owing to the fact that I will be taking my well deserved annual vacation in April, the notes for the following month will be written as usual by my arch enemy, Doc SMD. I hope him a go fellow, but don't believe all he says, he suffers from an overdose of imagination at times and no good journalist suffers from this complaint. Incidentally, dear Editor, he is a terrible, terrible, fatigued makes me shudder at the thought, it does. Will be seeing you, if I survive the gunmen.

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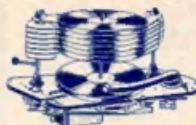
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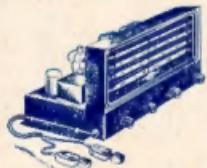
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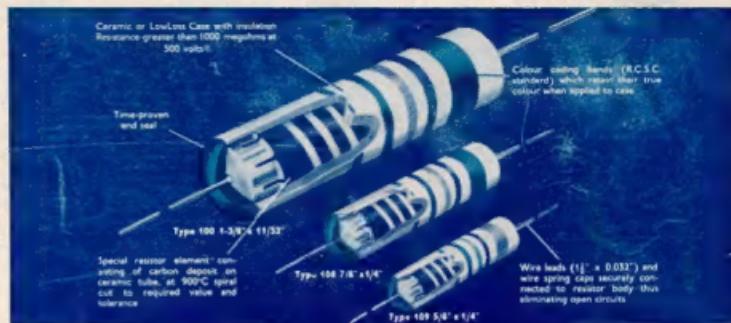
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Pre. V.	Res. Range	Pref. Val.	Res. Range	Pref. Value	Res. Range	Pref. Value	Res. Range
10	10-11	330	297-363	10,000	9,000-11,000	330,000	297,000-363,000
12	11-13	399	351-429	12,000	10,800-13,200	390,000	351,000-429,000
15	14-16	470	423-517	15,000	13,500-16,500	470,000	423,000-517,000
18	17-19	560	504-616	18,000	16,200-19,800	560,000	504,000-616,000
22	20-24	680	612-748	22,000	19,800-24,200	680,000	612,000-748,000
27	25-30	820	738-902	27,000	24,300-29,700	820,000	738,000-902,000
33	30-36	1,060	900-1,100	33,000	29,700-36,300	1.0 meg.	0.9-1.1 meg.
39	36-42	1,280	1,080-1,320	39,000	35,100-42,900	1.2 meg.	1.06-1.32 meg.
47	43-51	1,580	1,350-1,650	47,000	42,300-51,700	1.5 meg.	1.35-1.65 meg.
56	52-61	1,800	1,620-1,980	56,000	50,400-61,800	1.8 meg.	1.62-1.98 meg.
68	62-74	2,280	1,980-2,420	68,000	61,200-74,800	2.2 meg.	1.98-2.42 meg.
82	74-90	2,700	2,430-2,970	82,000	73,800-90,200	2.7 meg.	2.43-2.97 meg.
100	90-110	3,300	2,970-3,630	100,000	90,000-110,000	3.3 meg.	2.97-3.63 meg.
129	108-132	3,900	3,510-4,290	126,000	118,000-132,000	3.9 meg.	3.51-4.29 meg.
150	135-165	4,700	4,230-5,170	150,000	135,000-165,000	4.7 meg.	4.23-5.17 meg.
180	162-198	5,600	5,040-6,160	180,000	162,000-198,000	5.6 meg.	5.04-6.16 meg.
220	198-242	6,800	6,120-7,480	220,000	198,000-242,000	6.8 meg.	6.12-7.48 meg.
270	243-297	8,200	7,380-9,020	270,000	243,000-297,000	8.2 meg.	7.38-9.02 meg.

INTERNATIONAL PREFERRED VALUES (20% Tolerance)

Pre. V.	Res. Range	Pref. Val.	Res. Range	Pref. Value	Res. Range	Pref. Value	Res. Range
10	10-12	330	264-394	10,000	8,900-12,000	470,000	378,000-564,000
15	12-18	470	376-564	15,000	12,000-18,000	680,000	544,000-816,000
22	18-26	680	544-820	22,000	17,600-26,400	1.0 meg.	0.80-1.20 meg.
33	27-39	1,060	800-1,200	33,000	26,400-39,600	1.5 meg.	1.20-1.80 meg.
47	38-56	1,580	1,200-1,860	47,000	37,600-56,400	2.2 meg.	1.76-2.64 meg.
68	55-81	2,280	1,780-2,640	68,000	54,400-81,600	3.3 meg.	2.64-3.96 meg.
100	80-120	3,300	2,640-3,960	100,000	80,000-120,000	4.7 meg.	3.76-5.64 meg.
150	120-180	4,700	3,760-5,640	150,000	120,000-180,000	5.6 meg.	5.44-8.16 meg.
220	178-264	6,800	5,440-8,160	220,000	176,000-264,000	10.0 meg.	8.00-13.0 meg.
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